PATENT APPLICATION

ROH-037

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25. (Amended) A method for manufacturing a semiconductor device as claimed in claim 22, in which the resin sealing step includes a step of sealing, with a protective resin, the projection electrodes and the semiconductor chip and a step of removing a surface layer section of the protective resin so as to expose the head portions of the projection electrodes.

REMARKS

This Preliminary Amendment is requested prior to the initial examination of the above-identified patent application to eliminate multiple dependency. If the Examiner has any suggestions for placing this application in even better form, the Examiner is invited to telephone the undersigned and the number listed below.

Respectfully submitted,

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Appendix

VERSION WITH MARKING TO SHOW CHANGES MADE

IN THE CLAIMS:

Claims 5, 7,9, 12, 15, 20, 21, 24 & 25 have been amended as follows:

- 3. The method according to claim 1 [or 2] wherein in the resin removing step, at least a part of the protective resin layer is removed such that a surface of the protective resin layer and the external connection surface of the lead are flush with each other.
 - 5. A method for manufacturing a semiconductor device as claimed in claim 3 [or 4], further comprising a step of forming projection electrodes on the surface of the semiconductor substrate before forming the surface resin layer.
 - 7. A method for manufacturing a semiconductor device as claimed in claim 5 [or 6], further comprising a surface grinding step of exposing the projection electrodes from the surface resin layer by polishing or grinding the surface resin layer.
 - 9. A method for manufacturing a semiconductor device as claimed in [any of claims 3 to 8] claim 3, in which the surface resin layer and the back side resin layer are so formed as to have substantially the same thicknesses respectively.
 - 12. A semiconductor device as claimed in claim 10 [or 11], in which the semiconductor chip is bonded f ace-down onto the solid device with an active surface of the semiconductor chip opposed to the solid device.
 - 15. A semiconductor device as claimed in claim 13 [or 14], in which the substrate is provided with through holes enabling the electrical connection from a back side of the substrate to base potions of the projection electrodes.

- 20. A method for manufacturing a semiconductor device as claimed in [any of claims 17 to 19] claim_17, in which a back side of the semiconductor substrate or an inactive surface side of the semiconductor chip is polished or ground before the cutting out step.
- 21. A method for manufacturing a semiconductor device as claimed in [any of claims 17 to 20] claim_17, in which the projection electrodes are formed to be higher than the active surface of the semiconductor chip and lower than an inactive surface of the semiconductor chip.
- 24. A method for manufacturing a semiconductor device as claimed in claim 22 [or 23], further comprising a step of forming through holes enabling an electrical connection from a back side of the substrate to base portions of the projection electrodes.
- 25. A method for manufacturing a semiconductor device as claimed in [any of claims 22 to 24] claim 22, in which the resin sealing step includes a step of sealing, with a protective resin, the projection electrodes and the semiconductor chip and a step of removing a surface layer section of the protective resin so as to expose the head portions of the projection electrodes.